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### **Abstract of the Disclosure**

4       A method and system of processing a semiconductor substrate includes, in one or more  
5       embodiments, depositing a protective layer on the substrate surface comprising a conductive  
6       element disposed in a dielectric material; processing the protective layer to expose the  
7       conductive element; electrolessly depositing a metallic passivating layer onto the conductive  
8       element; and removing at least a portion of the protective layer from the substrate after  
9       electroless deposition. In another aspect, a method and system of processing a semiconductor  
10      includes depositing a metallic passivating layer onto a substrate surface comprising a conductive  
11      element, masking the passivating layer to protect the underlying conductive element of the  
12      substrate surface, removing the unmasked passivating layer, and removing the mask from the  
13      passivating layer.

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